

a) Title of the invention

Tool for production or treatment of drillings

l,) Area of application of the invention

The invention concerns twist drills, thread taps or other tools for the production or treatment of drillings, whereby the tools a being location of fracture to possess.

c) Characteristic of the well-known technical solutions

It is well-known that with not professional treatment of the tools these break off. The location of fracture can lie thereby in or outside of the drilling. Also the inhomogeneity of the material structure of the workpiece has large influence on the probability of break, The distance of the broken off tools from the drillings is pedantic and time-consuming despite tools developed for it, which applies also to the electrical eroding. In the predominant cases a damage of the drilling or the thread occurs with this job, so that the workpiece of a rework must be submitted or a re-use is impossible, which particularly causes high economical damage with major components. From the DE 16 52 806 B 23 0 5/06 or 49e 5/06 is ABOUT FOUR LINES MISSING FROM HERE.. Location of fracture, which is arranged to the extension part into the coupling sleeve. Admit are from the DE-OS 25 41 773 B 23 0 5/06 a thread tap, whose break section follows directly the clamping beginning, A break section, which is between cut part of the thread tap and its shank, possesses the DE-OS 30 02 994 B 23 G 5/05, The well-known technical solutions with break section do not make the re-use of the tool by unfavorable arrangement for the break section possible and/or, Nonexistence of shank training as the simple distance of the broken off tool part from the drilling without damage of the surface the same or the thread. The workpieces must be prepared also here and/or. a scrap iron explanation is necessary in unfavorable cases, which involves serious consequences in the building of large machines,

d) A goal of the invention

goal of the invention is the removal of the shown and for a long time well-known lack by a light and fast distance of the broken off tool without damage of the workpiece and re-use of the cut part of the tool, which is into the

drilling or tapped hole.

e) Statement of the nature of the invention

The invention is the basis the task to eliminate developing the causes for doing the workpiece over again and to make a re-use possible of the cut part. According to invention the task is solved by the fact that between the Schneidentail and the break section a sharp-edged beginning for handles for the distance of the broken off tool is present. The beginning can be formed by two parallel surfaces or possess also square, rechteckfoermigen or polygonen cross section and be equivalent large or smaller the clamping beginning, is favourable, if the beginning as well as the break section are in the proximity of the clamping beginning or follow directly. This arrangement permits that the cut part and the lower shank part are several times usable by gradual reducing of the break section and the beginning of the tool. In each execution the beginning can be same or smaller than the diameter of the shank. An extension of the solution according to invention is, instead of attaching the beginning into the shank two opposite grooves as transverse groove or two or more drilling, so that by means of a suitable tool in the drilling broken off drills present and/or, the reamer or the like the drilling working on tools by an axial or axialradial movement to be removed can.

f) Remark example

The invention is described below on the basis a remark example. The associated design shows up a thread tap with the clamping beginning 1 for the manipulation of the thread tap, the upper shank part of 2, those as break section 3 serving constriction, the following sharpened beginning 4 and the lower shank part of 5 with the cut part 6.